

IN THE CLAIMS

1. (Currently Amended) A printing method comprising:

providing a substrate having a surface coated with a film coating comprising between 29% and ~~50~~ 47.3% nano-silica by weight in a polymeric binder; and

printing on the coated surface with a liquid toner comprising pigmented polymer particles and a carrier liquid.

2. (Previously presented) A printing method according to claim 1 wherein the polymeric binder comprises an acrylic material.

3. (Original) A printing method according to claim 2 wherein the acrylic material comprises a cross-linked polyacrylic ester.

4. (Previously Presented) A printing method according to claim 1 wherein the coating is UV cured.

5. (Cancelled).

6. (Previously presented) A printing method according to claim 1 wherein the coating comprises at least 35% silica.

7. (Original) A printing method according to claim 6 wherein the coating comprises at least 40% silica.

8. (Original) A printing method according to claim 7 wherein the coating comprises at least 45% silica.

9. (Cancelled).

10. (Previously Presented) A printing method according to claim 1 wherein the silica has a size of between 5 and 50 nanometers.

11. (Cancelled).

12. (Previously presented) A printing method according to claim 10 wherein the silica has a size of between 10 and 20 nanometers.

13-15. (Cancelled).

16. (Previously Presented) A printing method according to claim 1 wherein the coating further comprises an anchorage agent.

17. (Original) A printing method according to claim 16 wherein the anchorage agent comprises an amine material.

18-20. (Cancelled)

21. (Previously presented) A printing method according to claim 17 wherein the substance is poly(propylene oxide).

22. (Previously presented) A printing method according to claim 17 wherein the substance is poly-oxyethylene.

23. (Previously Presented) A printing method according to claim 1 wherein the substrate and the pigmented particles are both acidic.

24. (Previously Presented) A printing method according to claim 1 wherein the substrate is coated with a polyamide coating between the coating containing silica and the substrate.

25. (Canceled)

26. (Previously Presented) A printing method according to claim 1 wherein the material of the substrate is chosen from the group consisting of PET, PVC and polycarbonate.

27. (Canceled)

28. (Previously Presented) A printing method according to claim 1 wherein the coating forms a substantially smooth surface.

29. (Previously Presented) A printing method according to claim 1 wherein the substrate is a sheet of material.

30. (Previously Presented) A printing method according to claim 1 wherein the substrate is a disk.

31. (Previously Presented) A printing method according to claim 1 wherein the surface of the coating is continuous.

32. (Cancelled)

33. (Currently Amended) A substrate comprising:

a sheet of polymer; and

a printable coating in the form of a film, on the polymer sheet comprising between 29% and ~~50~~ 47.3% nano-silica by weight of total solids in a polymeric binder.

34. (Previously presented) A coated substrate according to claim 33 wherein the polymeric binder comprises an acrylic material.

35. (Original) A coated substrate according to claim 34 wherein the acrylic material comprises a cross-linked polyacrylic ester.

36. (Previously Presented) A coated substrate according to claim 33 wherein the coating is UV cured.

37. (Cancelled)

38. (Previously presented) A coated substrate according to claim 33 wherein the coating comprises at least 35% silica.

39. (Original) A coated substrate according to claim 38 wherein the coating comprises at least 40% silica.

40. (Cancelled)

41. (Cancelled)

42. (Previously Presented) A coated substrate according to claim 33 wherein the silica has a size of between 5 and 50 nanometers.

43. (Original) A coated substrate according to claim 42 wherein the silica has a size of between 10 and 40 nanometers.

44-47. (Cancelled)

48. (Previously Presented) A coated substrate according to claim 33 wherein the coating further comprises an anchorage agent.

49. (Original) A coated substrate according to claim 48 wherein the anchorage agent comprises an amine material.

50. (Original) A coated substrate according to claim 49 wherein the amine material comprises a diamine terminated substance.

51. (Original) A coated substrate according to claim 49 wherein the amine material comprises a monoamine terminated substance.

52. (Original) A coated substrate according to claim 49 wherein the amine material comprises a triamine terminated substance.

53. (Previously presented) A coated substrate according to claim 50 wherein the substance is poly(propylene oxide).

54. (Previously presented) A coated substrate according to claim 50 wherein the substance is poly-oxyethelene.

55. (Previously Presented) A coated substrate according to claim 33 wherein the substrate is acidic.

56. (Previously Presented) A coated substrate according to claim 33 wherein the substrate is coated with a polyamide coating between the coating containing silica and the sheet.

57. (Previously Presented) A coated substrate according to claim 33 wherein the material of the sheet is chosen from the group consisting of PVC, PET and polycarbonate.

58 – 59. (Canceled)

60. (Previously Presented) A coated substrate according to claim 33 wherein the coating is smooth.

61. (Previously Presented) A printing method according to claim 29 wherein the sheet is flexible.

62. (Previously Presented) A printing method according to claim 61 wherein the resultant print on the sheet is a transparency.

63. (Previously presented) A printing method according to claim 29 wherein the sheet is flexible.

64. (Previously presented) A printing method according to claim 63 wherein the substrate is a transparency.

65. (Currently Amended) A printing method comprising:

providing a substrate having a surface coated with a film coating comprising between 25% and ~~50~~ 47.3% nano-silica by weight in a film formed of a polymeric binder; and

printing on the coated surface with a liquid toner comprising pigmented polymer particles and a carrier liquid.

66. (Previously presented) A printing method according to claim 65 wherein the polymeric binder comprises an acrylic material.

67. (Previously presented) A printing method according to claim 66 wherein the acrylic material comprises a cross-linked polyacrylic ester.

68. (Previously presented) A printing method according to claim 65 wherein the coating is UV cured.

69. (Previously presented) A printing method according to claim 65 wherein the coating comprises at least 35% silica.

70. (Previously presented) A printing method according to claim 69 wherein the coating comprises at least 40% silica.

71. (Previously presented) A printing method according to claim 70 wherein the coating comprises at least 45% silica.

72. (Previously presented) A printing method according to claim 65 wherein the silica has a size of between 5 and 50 nanometers.

73. (Previously presented) A printing method according to claim 72 wherein the silica has a size of between 10 and 20 nanometers.

74. (Previously presented) A printing method according to claim 65 wherein the coating further comprises an anchorage agent.

75. (Previously presented) A printing method according to claim 74 wherein the anchorage agent comprises an amine material.

76. (Previously presented) A printing method according to claim 75 wherein the substance is poly(propylene oxide).

77 (Previously presented) A printing method according to claim 75 wherein the substance is poly-oxyethelene.

78. (Previously presented) A printing method according to claim 65 wherein the substrate is coated with a polyamide coating between the coating containing silica and the substrate.

79. (Previously presented) A printing method according to claim 65 wherein the material of the substrate is chosen from the group consisting of PET, PVC and polycarbonate.

80. (Previously presented) A printing method according to claim 65 wherein the substrate is a sheet of material.

81. (Previously presented) A printing method according to claim 65 wherein the coating is smooth.

82. (Currently Amended) A substrate comprising:

a sheet of polymer; and

a printable coating in the form of a film, on the polymer sheet comprising between 25% and 50 47.3% nano-silica by weight of total solids in a film of a polymeric binder.

83. (Previously presented) A coated substrate according to claim 82 wherein the polymeric binder comprises an acrylic material.

84. (Previously presented) A coated substrate according to claim 83 wherein the acrylic material comprises a cross-linked polyacrylic ester.

85. (Previously presented) A coated substrate according to claim 82 wherein the coating contains at least 30% silica.

86. (Previously presented) A coated substrate according to claim 85 wherein the coating comprises at least 35% silica.

87. (Previously presented) A coated substrate according to claim 86 wherein the coating comprises at least 40% silica.

88. (Previously presented) A coated substrate according to claim 87 wherein the coating comprises at least 45% silica.

89. (Previously presented) A coated substrate according to claim 82 wherein the silica has a size of between 5 and 50 nanometers.

90. (Previously presented) A coated substrate according to claim 89 wherein the silica has a size of between 10 and 20 nanometers.

UDX A05

91. (Cancelled)

92. (Cancelled)

93. (Previously presented) A coated substrate according to claim 82 wherein the material of the sheet is chosen from the group consisting of PVC, PET and polycarbonate.